

PATENT APPLICATION

DECLARATION AND POWER OF ATTORNEY

ATTORNEY DOCKET NO. **MSFT-1794**

MS DOCKET NO. **303770.1**

As a below named inventor, I hereby declare that:

My residence/post office address and citizenship are as stated below next to my name;

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: **SYSTEMS AND METHODS FOR EFFICIENTLY UPDATING COMPLEX GRAPHICS IN A COMPUTER SYSTEM BY BY-PASSING THE GRAPHICAL PROCESSING UNIT AND RENDERING GRAPHICS IN MAIN MEMORY**
the specification of which is filed herewith unless the following box is checked:

☐ was filed on _____ as US Application Serial No. or PCT International Application
Number _____ and was amended on _____ (if applicable).

I hereby state that I have reviewed and understood the contents of the above-identified specification, including the claims, as amended by any amendment(s) referred to above. I acknowledge the duty to disclose all information which is material to patentability as defined in 37 CFR 1.56.

Foreign Application(s) and/or Claim of Foreign Priority

I hereby claim foreign priority benefits under Title 35, United States Code Section 119 of any foreign application(s) for patent or inventor(s) certificate listed below and have also identified below any foreign application for patent or inventor(s) certificate having a filing date before that of the application on which priority is claimed:

COUNTRY	APPLICATION NUMBER	DATE FILED	PRIORITY CLAIMED UNDER 35 U.S.C. 119
			YES: _____ NO: _____
			YES: _____ NO: _____

Provisional Application

I hereby claim the benefit under Title 35, United States Code Section 119(e) of any United States provisional application(s) listed below:

APPLICATION SERIAL NUMBER	FILING DATE

U.S. Priority Claim

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code Section 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, Section 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

APPLICATION SERIAL NUMBER	FILING DATE	STATUS(patented/pending/abandoned)

POWER OF ATTORNEY:

As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) listed below and those associated with Customer No.:



23377

PATENT TRADEMARK OFFICE

to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

Steven J. Rocci, Reg. No. 30489		David Bartley Eppenauer, Reg. No. 35499	Martin L. Shively, Reg. No. 33553
Ronald O. Zink, Reg. No. 35744	Patricia E. Bornes, Reg. No. 37038	Michael W. Bocianowski, Reg. No. 28692	Danielle J. Holmes, Reg. No. 39720

Send Correspondence to:

Contact Name **RICHARD W. KNIGHT**
Firm Name **WOODCOCK WASHBURN LLP**
Firm Address **ONE LIBERTY PLACE, 46TH FLOOR**
City, State and Zip **PHILADELPHIA, PA 19103**

Direct Telephone Calls To:

Contact Name **RICHARD W. KNIGHT**
Contact Phone Number **206.332.1394**

DECLARATION AND POWER OF ATTORNEY

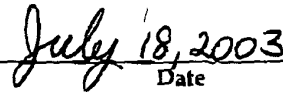
ATTORNEY DOCKET NO. MSET-1794

MS DOCKET NO. 303770.1

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of Inventor: Donald David KarlovCitizenship: United States of AmericaResidence: North Bend, WashingtonPost Office Address: 43006 SE 163rd StreetNorth Bend, Washington 98045

Inventor's Signature



Date